[0029] In the case of translation it could suffice to shift, for example by means of a double-axis translation plate, one end of a fibre optic whereof the other end receives the radiation from the laser. The same applies in the case of rotation of the reflector, where the incident radiation reaching the reflector could originate from a fibre optic receiving the radiation from the laser.

[0030] In the preferred embodiment the shape memory relates only to the linking arm or arms of the blade in continuum of the plate, the arms having a first form above a predetermined temperature and a second form below this temperature. The modification elements of the tactile sensation are thus each constituted by the one blade and its link arm or arms. The blade is a mobile organ linked mechanically to the arm. The radiation output by the laser acts by heating the arm or arms.

[0031] Therefore the device according to the present invention enables thermal operation without electrical contact, and this reduces the complexity of the addressing and makes production easier.

[0032] Other advantages and characteristics of the invention will emerge from the following description of exemplary embodiments.

BRIEF DESCRIPTION OF THE DRAWINGS

[0033] Embodiments of the invention will now be described in reference to the attached drawings in which the same reference numerals are used for identical elements or having the same function.

[0034] **FIG. 1** illustrates a plate forming a tactile interface and comprising an array of modification elements of the surface of the plate.

[0035] **FIG. 2** illustrates a first embodiment of one of the modification elements of the plate in a plan view of a part A and in a sectional view according to the line BB of the part A, in a part B.

[0036] **FIG. 3** illustrates a plan view of a second embodiment of the invention.

[0037] **FIG. 4** illustrates a transversal sectional view of a plate according to a variant embodiment of the second embodiment of the invention.

[0038] **FIG. 5** comprises parts A to F.

[0039] Part A illustrates a transversal sectional view of a plate according to a third embodiment of the invention.

[0040] Part B illustrates a plan view of a first sub-plate of a third embodiment of one of the modification elements of the plate.

[0041] Part C illustrates a view from below of a second sub-plate of the third embodiment of one of the modification elements of the plate,

[0042] Part D illustrates a plan view of the third embodiment of one of the modification elements of the plate, the first and second sub-plates being assembled.

[0043] Parts E and F illustrate respectively sections according to the lines EE and FF of parts B and C of the shape form of the first and second sub-plates respectively.

[0044] **FIG. 6** illustrates an exploded view of an embodiment of a device comprising a tactile interface according to the present invention comprising control means by laser in which shift of the laser radiation is obtained by a translation table,

[0045] **FIG. 7** illustrates an exploded perspective view of another embodiment of a device comprising a tactile interface according to the present invention and comprising control means by laser, in which the shift of the laser radiation is obtained by rotation of the axes of a mirror receiving the radiation put out by the laser emitter,

[0046] **FIG. 8** illustrates an exploded perspective view of an embodiment of a device comprising a tactile interface according to the present invention, and comprising control means by laser in which the laser emitters are equal in number to the number of tactile modification elements of the plate,

[0047] **FIG. 9** illustrates a schematic view of an embodiment in which the modification elements of the tactile sensation are made up by a surface of a heat-conducting material.

DETAILED EXPLANATION OF PARTICULAR EMBODIMENTS

[0048] **FIG. 1** illustrates a plate **10** having an upper surface **10***a* comprising an array of modification elements **25** of the surface **10***a* of the plate **10**. Each element **25** has been illustrated in the form of a part, for example a rectangle, of the totality of the surface of the plate **10***a*. Examples of such elements will be specified hereinbelow. In **FIG. 1** these elements **25** have been shown arranged according to a matrix shape in lines and columns. This arrangement is not mandatory. The plate **10** is a plate comprising at least one sub-plate made of a shape memory material. This plate is shown in full lines. It will be seen hereinbelow, in the description of the elements **25**, that the plate **10** can comprise for example a layer **12** and a layer **11**, each layer forming a sub-plate and the two sub-plates being solid with one another. In **FIG. 1** the sub-plates **11**, **12** are shown generically, separated by a dotted line. In the two embodiments with one integrated plate or two sub-plates, the plate **10** is in the form of a continuum.

[0049] Embodiments of modification elements **25** of the plate **10** will now be described in conjunction with FIGS. **2** to **4**.

[0050] **FIG. 2** comprises a part A and a part B. The part A shows a plan view of a modification element **25** of the surface **10***a* of the plate **10**. The part B shows a transversal section of this same element according to the line BB of the part A. The element **25** is a part in the form of a rectangle of a plate **10** made of a shape memory material having undergone treatment to make it two way. A blade **23** is obtained by a cutout of the plate **10** forming around the blade **23** a recess **14**. This recess **14** is present on the entire perimeter of the blade **23**, with the exception of a connection part of the blade **23** to an arm **13**, connecting the blade **23** to the continuum of the plate **10**. The arm **13** has in a first shape memory form a direction parallel to the plane of the plate **10**, as shown in full lines in part B. When the temperature of a part of the arm shown schematically at **21** is raised above a predetermined temperature, it takes on a